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10/743,461	12/23/2003	Thomas Thoroe Scherb	P24575	8138

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EXAMINER

HUG, ERIC J

ART UNIT PAPER NUMBER

1731

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/743,461
Filing Date: December 23, 2003
Appellant(s): SCHERB ET AL.

Neil F. Greenblum
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 8, 2005 appealing from the Office
action mailed April 18, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

A decision on Appeal No. 2003-1161 was rendered in U.S. Patent Application No. 09/471,369, of which the instant application is a Continuation, on October 23, 2003 affirming the Examiner's final rejection.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

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(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,248,210	Edwards et al.	06-2001
US 5,043,046	Laapotti	08-1991
US 5,556,511	Bluhm et al.	09-1996
US 4,139,410	Tapio et al.	02-1979
US 5,019,211	Sauer	05-1991

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-4, 7-21, and 24-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards (US 6,248,210). Edwards discloses a pressing unit for dewatering an absorbent fibrous web such as tissue paper. The pressing unit includes a shoe press acting on a Yankee drying cylinder. The Yankee serves as the backing roll for the press shoe of the shoe press. Figure 9 shows the shoe press against the Yankee drying cylinder. The web contacts the drying surface of the Yankee. Underlying the web are a water-absorbent felt and an impermeable shoe press belt

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(blind bored or grooved, column 3, lines 57-59) that circulates the press shoe. Nip pressure profiles are illustrated for a shoe press in Figures 3, 7, and 8. The nip pressure profile for a shoe press is asymmetrical, with the peak pressure occurring near the end of the shoe where the web runs out of the press nip. The profile gradually increases to the peak pressure then steeply drops off.

Figure 3 compares two shoe presses of different shoe lengths and a two-roll nip press utilizing a suction roll. The shoe presses illustrated in Figure 3 have shoe lengths of 50 (the so-called "new" shoe) and 120 mm (the so-called "typical" shoe), although the actual shoe length of the new shoe can be any length less than seven inches (equivalently 175 mm) as given in column 16, line 43. The nip line load is 90 kN/m for all shoes in Figure 3. The peak pressure for the 120 mm shoe (typical shoe) is about 1500 kN/m² (1.5 MPa). The peak pressure for the 50 mm shoe (new shoe) is about 4500 kN/m² (4.5 MPa), although it is disclosed as being at least 2000 kN/m² (2.0 MPa). Figure 12 shows the relationship between the Yankee press solids and the applied line load for the 50mm and 120mm shoes. Line loads in Figure 12 range from about 87.5 kN/m to about 250 kN/m for both shoes. For the new shoe, the line load is disclosed as being less than about 240 kN/m (e.g., see column 8, line 48) and is preferred to be less than 100 kN/m (column 17, line 8).

The apparatus of Edwards comprises all the claimed elements, namely the press shoe, the press shoe length, the Yankee cylinder, the web, absorbent band, and impermeable band, and is capable of operating within the claimed limits of nip length, peak pressure, and line load as demonstrated by the examples provided. In summary, the conventional press shoe in Figure 3 has a length of 120mm (greater than the claimed approximately 80 mm) and operates with a peak

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pressure of about 1.5 MPa (less than the claimed 2 MPa) and line load of 90 kN/m (between the claimed approximately 90-110 kN/m of claim 4), and the new press shoe with Yankee dryer has a length of less than 175 mm (which includes values greater than the claimed approximately 80 mm) and operates with peak pressure of at least about 2 MPa (includes the claimed "less than or equal to approximately 2 MPa) and a preferred line load less than 100 kN/m (which includes values within the claimed 90-110 kN/m range).

The features described above read on the shoe press features and operating conditions of claims 1-4, the shape of the pressure profiles of claims 7 and 8, the features of web, felt, and belt of claims 16-18 and 21, the shoe press roll with jacket of claims 27 and 28 (by virtue of combination of a press shoe and a circulating belt), and the replaceable press shoe of claim 29 (by virtue of using shoes of different lengths). Additional press nips and suction devices relating to claims 24-26 are disclosed in column 11, line 8 to column 12, line 25.

Regarding the pressure gradients of claims 9-15, because the same shoe lengths, peak pressure values, locations of the peak pressures, and shapes of the pressure profiles are all disclosed by Edwards, it would be inherent that the rise in pressure and fall in pressure along the length of the shoe would also fall within the claimed ranges. For example, as can be determined from Figure 3, the pressure rise gradient for the 50 mm shoe is about 4.5MPa/40 mm or equivalently about 115 kPa/mm, which is close to the claimed 120 kPa of claim 11, at least within reasonable error. In actuality, the pressure rise gradient will occur a few mm short of 40 mm, so the pressure rise gradient may be higher. It is also clear that the pressure drop occurs over the last few mm of the press shoes, and is higher than 1000 MPa/mm.

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Regarding claims 19, 20, and 30-32, useful felts are disclosed in column 1, line 64-column 2, line 5, and in column 2, line 61-column 31. These include felts comprising a base fabric with a stratified batting, and felts structured for imprinting a pattern onto the web. The claimed structural features of 19, 20, and 30-32 are conventional for the types of papermaking felts disclosed by Edwards.

Note that the claimed peak pressures, line forces, and pressure gradients impart no apparent structural limitations to the claimed machine, as they are merely limitations on the operational aspect of the machine. Without any further structural recitation, the press of Edwards is indistinguishable from the claimed apparatus.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Laapotti (US 5,043,046). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards discloses that the press shoe extends cross-wise the width of the web, but does not disclose that the press shoe comprises a plurality of press elements arranged cross-wide and adjacent to one another, such press elements adapted to press the press shoe against the drying cylinder and being actuatable independently of one another. However, these features of a shoe press are well known as exemplified by the shoe press of Laapotti. Laapotti in Figure 2 teaches using a plurality of press elements in the cross-wise direction in order to control crowning, which is known to affect the widthwise quality of the web. Therefore, at the time of the invention, it would have been obvious to one skilled in the art that the press shoe of Edwards

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would comprise the above mentioned press elements in order to press a web uniformly across its width.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Bluhm et al (US 5,556,511) and Tapio et al (US 4,139,410). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards discloses using only a single press nip at the Yankee dryer rather than the claimed additional press nip.

The use of two or more press nips with a heated drying cylinder is well known as exemplified by Bluhm and Tapio. Bluhm discloses the use of a shoe press 9' against a surface of a heated counter roll 9, which Bluhm expresses as being advantageous for drying of tissue papers. The use of a wide nip avoids hurting the quality of a tissue web as compared to a conventional roll-roll press nip. Figure 5 shows the use of two shoe presses 9' against the heated counter roll, in which Bluhm says can be advantageous depending on the drying requirements (column 5, lines 1-8). The known use of a Yankee drying cylinder is also discussed by Bluhm in column 1, lines 16-24, so there is some suggestion by Bluhm for using the two shoe presses against the surface of a Yankee drying cylinder. Even if it not readily apparent that the two shoe presses can be used against a Yankee drying cylinder, Tapio is cited here to exemplify that the use of two press nips against a Yankee drying cylinder is well known for the purpose of further drying the web enabling it to adhere better to the Yankee cylinder when later creped. Therefore, at the time of the invention it would have been obvious to one skilled in the art to utilize an additional shoe press nip against the Yankee drying cylinder in Edwards, as taught by Bluhm and

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Tapio to improve the drying of the tissue web as conditions dictate and to insure adhesion of the web to the Yankee dryer during creping.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Sauer (US 5,019,211). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards does not disclose a web having curled fibers, however the use of curled fiber in making absorbent webs is well known in the art, as disclosed by Sauer. Sauer discloses method steps of making absorbent webs with curly fibers that include drying on a Yankee dryer and creping. Therefore, at the time of the invention, it would have been obvious to one skilled in the art that the shoe press of Edwards would be useful for making absorbent webs with curly fibers.

(10) Response to Argument

In response to Applicant's arguments, the examiner recognizes that the typical or conventional shoe press disclosed in Edwards by way of comparative example in Figure 3 and described in column 5, lines 50-65, is considered by Edwards to be ill-suited for low weight absorbent papers because of the shape of the conventional press shoe. A conventional press shoe is shaped to conform to a conventional counter roll rather than to a large Yankee dryer (column 5, lines 58-60). Nevertheless, Edwards discloses the combination of a conventional press shoe with a Yankee dryer as a first improvement over a conventional press shoe/counter roll, and then later discloses a preferred combination of a "new" press shoe with a Yankee dryer. It is the examiner's position that the combination of a conventional press shoe with a Yankee dryer

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disclosed by Edwards does not teach away from the present invention, but is merely an intermediate step towards obtaining a preferred press arrangement.

As described above, the combination of a conventional press shoe with Yankee dryer and the combination of a "new" press shoe with Yankee dryer in Edwards both have the claimed press shoe length of greater than approximately 80 mm, and both operate at peak pressure of less than or equal to approximately 2 MPa and line load between approximately 90-110 kN/m.

It has been noted above that operational parameters of peak pressure and line force do not appear to impart any structural features to the claimed machine, and therefore do not distinguish the claimed machine from that of Edwards regardless of what the pressure and line force values may be. Applicant argues that the particular pressure gradients recited in the claims are directed to the structural make-up of the claimed machine. However without any further recitation of structural features, the claimed apparatus is considered to be indistinguishable from that of Edwards. The manner of operating a device does not differentiate an apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim.

Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP 2114.

The arguments regarding the supporting references Laapotti (US 5,043,046), Bluhm et al (US 5,556,511), Tapio et al (US 4,139,410), and Sauer (US 5,019,211) are not convincing for reasons given above, as they are applied as teaching references and must be viewed with the other prior art references as a whole. The elements recited in the rejected claims are obvious

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for the reasons given above. It is felt that their combined teachings would adequately suggest to a person skilled in the art to arrive at the claimed combination.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

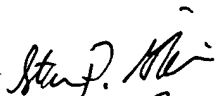
Respectfully submitted,

Eric Hug

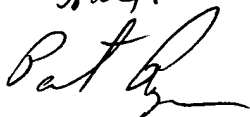


Conferees:

Steven Griffin



Pat Ryan



The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS THOROE SCHERB
and
HARALD SCHMIDT-HEBBEL

Appeal No. 2003-1161
Application No. 09/471,369

HEARD: September 9, 2003

Before KIMLIN, DELMENDO and POTEATE, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 37-44 and 48-73, all the claims remaining in the present application. Claim 37 is illustrative:

37. A machine for the manufacture of a fiber material web, comprising:

a shoe pressing unit;

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a cylinder comprising one of a drying and tissue cylinder, said shoe pressing unit and said cylinder being arranged to form at least one press nip;

a water absorbent carrier band;

a water-impermeable pressing band, wherein said water absorbent carrier band and said water-impermeable pressing band are guided through said at least one press nip, and the fiber material web is adapted to pass through said at least one press nip with said water absorbent carrier band and said water-impermeable pressing band; and

said at least one press nip has a length in a web travel direction greater than approximately 80 mm,

wherein said shoe press unit, said cylinder, said water absorbent carrier band and said water-impermeable pressing band are structured and arranged so that a pressure profile which results over the press nip length has a maximum pressing pressure which is less than or equal to approximately 2 MPa, and

wherein said shoe press unit, said cylinder, said water absorbent carrier band and said water-impermeable pressing band are structured and arranged for the formation of one of a tissue paper and a hygienic paper web.

In the rejection of the appealed claims, the examiner relies upon the following references:

Wahren	4,324,613	Apr. 13, 1982
Laapotti	4,976,820	Dec. 11, 1990
Schiel	6,004,429	Dec. 21, 1999

Appellants' claimed invention is directed to a machine for manufacturing a fiber material web comprising a press nip between one of a drying and tissue cylinder and a shoe pressing unit, wherein the press nip has a length in a web travel direction greater than approximately 80 mm. Also, the machine has a

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pressure profile over the press nip length with a maximum pressing pressure less than or equal to approximately 2 MPa. Also, the machine is "structured and arranged for the formation of one of a tissue paper and a hygienic paper web" (claim 37, last two lines).

Appealed claims 37-39, 41, 42, 44, 48, 56-58, 61, 62 and 64-66 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Laapotti. Claims 40, 43, 49-55, 59, 60, 63 and 67-73 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Laapotti. Also, claims 37-44 and 48-73 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Schiel.

Appellants submit that "none of the claims stand or fall together" (sentence bridging pages 5 and 6 of principal brief). However, we agree with the examiner's finding stated at page 3 of the Answer that appellants have not set forth a substantive argument that is reasonably specific to any particular claim on appeal. The text at pages 12-13 of the principal brief amounts to no more than a legal conclusion that separate claims would not have been obvious to one of ordinary skill in the art but, as

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explained by the examiner, appellants have not presented any rationale why the recitations of these claims are either not anticipated by the cited references or would not have been obvious to one of ordinary skill in the art. Accordingly, the groups of claims separately rejected by the examiner stand or fall together.

We have thoroughly reviewed each of appellants' arguments for patentability. However, we find that the examiner's rejections are well-founded and supported by the prior art evidence relied upon. Accordingly, we will sustain the examiner's rejections for the reasons set forth in the Answer, which we incorporate herein, and we add the following for emphasis only.

Concerning the § 102/§ 103 rejection over Laapotti, a principal argument advanced by appellants is that Laapotti fails to provide any disclosure that the disclosed machine is structured and arranged for the formation of a tissue paper and a hygienic paper web, as recited in independent claim 37. However, we concur with the examiner's rationale that inasmuch as Laapotti discloses that the inventive apparatus is an improvement over the Wahren apparatus, which is admittedly structured to make tissue paper, there is a reasonable basis for concluding that the

apparatus of Laapotti is also capable of making tissue paper. Also, appellants have not refuted the examiner's finding that the present specification, at page 2, lines 21-25, states that the disclosed machine can also make paper and/or cardboard web. Hence, since The Dictionary of Paper 444 (3d ed., New York 1965), cited by the examiner, defines "tissue paper" as "made on any type of paper machine," and appellants have not taken issue with the examiner's finding that the presently claimed machine can make tissue paper or paper, we find that the evidence of record reasonably supports the examiner's conclusion that the apparatus of Laapotti is capable of making tissue paper. Appellants have advanced no objective evidence to the contrary.

Appellants also maintain that one of ordinary skill in the art would appreciate the distinction between the claimed drying cylinder and the heated cylinder of Laapotti. However, we must concur with the examiner that "there is no inherent structural distinction between 'a drying cylinder' and the hot cylinder 10 of Laapotti; especially again when considered that Laapotti specifically discloses as prior art Wahren's dryer cylinder 1 which is similar to the dryer cylinder 10 disclosed in Laapotti figures 1-4" (page 14 of Answer, second paragraph). Insofar as Wahren discloses that "a major part of the drying must take place

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in the press nip" (column 6, lines 19 et seq.), we find no error in the examiner's reasoning that heated cylinder 10 of Laapotti meets the requirement for the claimed unspecified drying cylinder.

We now turn to the rejection of claims 37-44 and 48-73 under § 102/§ 103 over Schiel. We concur with the examiner that Schiel, which describes a tissue making machine, fairly teaches the claimed maximum pressing pressure of less than or equal to approximately 2 MPa. In our view, the examiner's reasoning is sound that the claimed maximum pressure is implicitly taught by Schiel which discloses that it is particularly advantageous to use a maximal pressure above 2.5 MPa if a high production capacity is sought. Based on this teaching, we agree with the examiner that it is reasonable to conclude that the tissue-making machine of Schiel is capable of operating at the recited pressing pressure. Appellants erroneously maintain that "it is immaterial whether the apparatus is capable of being operated at the recited maximum pressure" (page 19 of principal brief, last paragraph). It is well settled that the manner in which an apparatus is used cannot distinguish the apparatus from a prior art apparatus which has the same structure and is capable of performing the same function. In re Yanush, 477 F.2d 958, 959, 177 USPQ 705, 706

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(CCPA 1973) and In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967).

Appellants have also not refuted the examiner's factual determination that the prepressing cylinder 38 of Schiel meets the requirements of independent claim 37. In particular, the examiner has made the following factual findings at page 16 of the Answer, second paragraph:

Furthermore, the prepress set forth on column 4 of Schiel teaches the appropriate length and pressure recited (see column 4 lines 56+). The prepress itself may read on at least claim 37 since the cylinder 38 may be deemed to be a dryer cylinder or a tissue cylinder since it is a tissue making machine. There is no structural recitation in these claims (e.g. 37, 38, 39, etc.; indeed in all of the claims except for claim 43, "the dryer or tissue cylinder" clearly could read on cylinder 38 of the prepress of Schiel) to distinguish thereover.

Significantly, appellants have not addressed the examiner's rationale in either the principal or reply briefs on appeal.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED

Edward C. Kimlin
EDWARD C. KIMLIN)
Administrative Patent Judge)

Romulo H. Delmendo
ROMULO H. DELMENDO)
Administrative Patent Judge)

BOARD OF PATENT
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Linda R. Poteate
LINDA R. POTEATE)
Administrative Patent Judge)

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Application No. 09/471,369

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